

REMARKS

Claims 1-17 were pending in the application. Claims 1-8 and 14-17 are amended to specify a floor or wall covering. New claim 18 is added to specify a floor covering, new claim 19 is added to specify a wall covering, and new claim 20 is added to specify a transportation vehicle wall covering, leaving claims 1-20 pending in the application. Support for these amendments is found in the specification at paragraph [0042]. Applicants respectfully request entry of these amendments without prejudice.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-7, 14, 15 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 6,114,046) in view of Dewart et al. (U.S. Pat. No. 6,114,456) and Hanoka (U.S. Pat. No. 5,733,382). This rejection is respectfully traversed.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art or knowledge relied upon is generally available in the art at the time of the invention, and must provide some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). “A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). To find obviousness, the Examiner must “identify a reason that would have prompted a person of ordinary skill in the art in the relevant field to combine the elements in the way the claimed new invention does.” *Id.* Additionally, the prior art relied on must be

analogous, i.e., it must logically commend itself to the inventor's attention in considering his or her invention. MPEP § 2141.01(a).

In the present case, Applicants respectfully submit that the Hanoka references, directed to solar cell modules, are not analogous art to Applicants' claimed invention directed to floor and wall coverings. The Hanoka references are directed to encapsulated solar modules where the encapsulating material protects and seals the underlying solar cell without affecting its optical properties and is resistant to solar degradation. Applicants' claimed flooring and wall coverings, on the other hand, do not encapsulate or seal anything, but are instead decorative flooring and wall materials that are typically mounted on concrete or wood sub-floors (in the case of flooring) or on wall sub-panels or structural support members (in the case of walls). Additionally, in the case of flooring, Applicants' claimed floor coverings must withstand heavy and repeated wear, a consideration virtually non-existent for Hanoka's solar cell modules. Accordingly, Applicants respectfully submit that one skilled in the art seeking new and improved floor and wall coverings would not reasonably or logically look to the solar cell module art for solutions. Applicants therefore submit that the Hanoka references should not be cited against Applicants' claimed invention.

Additionally, as set forth in Fine, the cited art must disclose each of the claim elements, and Applicants respectfully submit that the cited references at least fail to disclose a polymer substrate that is free of ionic bonds. Applicants further submit that one skilled in the art would have no reason to combine the references in the manner as proposed by the Examiner.

The Examiner does not explicitly identify which layer in any of the Hanoka '046 Figures is supposed to satisfy Applicants' claimed substrate, but appears to have changed from the previous interpretation that the ionomeric outer layer of the encapsulant was the substrate, and

now implies that it is a glass substrate, which the Examiner asserts that Hanoka '382 teaches to replace with polyethylene. The Examiner does not explicitly state that the polyethylene substrate disclosed by Hanoka '382 is ionomer-free, but implies it by offering it up as a secondary reference to augment the failure of Hanoka '046 to disclose an ionomer-free polymer substrate. Applicants respectfully, but strenuously, disagree with the Examiner's interpretation of the teachings of the Hanoka references in this regard.

Hanoka '382, at the col. 11, lines 35+ portion cited by the Examiner, discloses replacing a "rear glass plate 50" with a "backskin comprising a sheet of polyethylene 80". Hanoka '046 also discloses a "backskin" layer at col. 6, lines 53-63; however, the disclosure of the Hanoka '046 backskin is not limited to glass, as the Examiner appears to argue in the Office Action. To the contrary, Hanoka '046 discloses that its backskin layer 28 may be glass *or* polymer, and the detailed embodiment offered up by the reference is for a backskin layer that *includes* at least two ionomers. So, if one skilled in the art, as argued by the Examiner, wanted to replace the glass backskin layer of Hanoka '046 with a polymer substrate because polymers are more flexible and lighter than glass, one would not have to turn to the older Hanoka '382 reference since Hanoka '046 *itself* discloses polymer backskins. As required by *KSR*, the Examiner must provide some reason why one skilled in the art would modify the clear teaching of Hanoka '046 to use ionomer-containing polymer substrates, and no such reason has been provided.

Moreover, Applicants submit that Hanoka '382 does not disclose a polymer substrate that is *free* of ionomer content, as required by Applicants' claimed invention. The reference is silent about the details of the chemical composition of the polyethylene sheet. The reference mentions that it is "polyethylene", but it does not state that it is pure polyethylene, and Applicants respectfully submit that it is doubtful that 100% pure polyethylene (with no additives for UV

resistance for this solar cell encapsulant or any other kind of additive) was intended. Moreover, even if pure polyethylene were intended by Hanoka '382 for its backskin, why would one switch from the ionomer-containing polyolefin backskin disclosed by the new and more advanced Hanoka '046 reference? Accordingly, Applicants respectfully submit that the cited references fail to disclose or suggest Applicants' claimed invention having an ionomer-free polymer substrate.

For the above reasons, Applicants respectfully request that this rejection be withdrawn.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 6,114,046) in view of Dewart et al. (U.S. Pat. No. 6,114,456) and Hanoka (U.S. Pat. No. 5,733,382), as applied to claims 1-7, 14, 15 and 17 above, and further in view of JP-0923018. This rejection is respectfully traversed.

JP'018 is cited for teaching a polyurethane layer may be applied to a solar cell module. JP'018 discloses a solar battery module comprising several battery cells electronically connected to one another and sealed with an aliphatic and/or polyurethane resin on a substrate. The function of the polyurethane as disclosed in JP'018 is to seal the solar battery module against the elements. However, the Hanoka material itself is used to encapsulate (i.e., seal) other materials, and Applicants respectfully submit that one skilled in the art would therefore not look to combine JP'018 with the disclosure of Hanoka because Hanoka's materials are already sealed. The Examiner argues that there is motivation to apply the JP '018 polyurethane to the surface of Hanoka in cases where Hanoka utilizes an upper glass film (presumably front support layer 26). However, Applicants' claim 8 requires that the polyurethane wear layer is "*on* the wear layer", and the wear layer is defined in claim 1 as an ionomeric polymer, so Applicants' claim 8 would

not read on the construct argued by the Examiner with a polyurethane layer on glass. Additionally, JP '018 fails to remedy the above-discussed shortcomings of the combined references as applied to claims 1-7, 14, 15, and 17, and Applicants submit that claim 8 is patentable therefore also patentable for at least the reasons discussed above with respect to those other claims. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 6,114,046) in view of Dewart et al. (U.S. Pat. No. 6,114,456) and Hanoka (U.S. Pat. No. 5,733,382), as applied to claims 1-7, 14, 15 and 17 above, and further in view of Yamada (U.S. Pat. No. 6,335,479). This rejection is respectfully traversed.

Applicants point out that claim 16 clearly specifies “mineral” fillers, and while Yamada contains a generic boilerplate reference to “fillers”, it fails to disclose mineral fillers as required by Applicants’ claimed invention. Accordingly, Applicants respectfully submit that the combined references fail to disclose each element of Applicants’ claimed invention as required by *Fine*. Additionally, Yamada fails to remedy the above-discussed shortcomings of the combined references as applied to claims 1-7, 14, 15, and 17, and Applicants submit that claim 16 is patentable therefore also patentable for at least the reasons discussed above with respect to those other claims. Accordingly, Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

In view of the above amendments and the discussion relating thereto, it is respectfully submitted that the present application is in condition for allowance. Such action is most

earnestly solicited. If for any reason the Examiner feels that consultation with Applicants' attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below for an interview.

Applicant hereby petitions under 37 CFR 1.136 and other applicable rules to have the response period extended the number of months necessary to render the attached communication timely in the event a petition is required.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130, maintained by the applicant's attorney.

Respectfully submitted,

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